

APPENDIX C. VISUAL INSPECTION PHOTOGRAPHS

C1. Photograph Station Information

Table C-1.Photo log for Year 7 visual inspection

Photo Station ID	Target Coordinates				Marker Condition	Target Photo Orientation (T=True North, M=Magnetic North)	Actual Photo Orientation (Magnetic North) ^b	Photo ID	Photo Number ^c	Photo Time	Photo Target Area Description	Notes
	Latitude	Longitude	Northing ^a	Easting ^a								
A	47.536176 ^d	-122.319524 ^d	199125 ^d	1273323 ^d	poor; bent + buried	55° T; 39° M	55°	A1	100-0019	10:44	east-central sediment cap	survey stake was found bent and driven into ground, re-installed new painted stake, added bulkhead marker
B	47.536635	-122.319241	199292	1273396	good; needs paint	48° T; 32° M	48°	B1	100-0020	10:50	north sediment cap	marker repainted
C	47.537207	-122.318901	199499	1273484	good; needs paint	178° T; 162° M	178°	C1	100-0006	09:48	northwest slope cap, south sediment cap	marker repainted
					good; needs paint	217° T; 201° M	217°	C2	100-0007	09:49	northwest slope cap	marker repainted
D	47.537020	-122.319224	199433	1273402	good; needs paint	24° T; 8° M	24°	D1	100-0023	11:03	northwest beach/anchored logs	marker repainted
E	47.537169	-122.319075	199486	1273441	good; needs paint	102° T; 86° M	102°	E1	100-0008	10:04	north slope cap, outfalls	marker repainted
					good; needs paint	144° T; 128° M	144°	E2	100-0009	10:05	northeast slope cap, north rip rap slough	marker repainted
F	47.536768	-122.319172	199338	1273418	good; needs paint	133° T; 117° M	133°	F1	100-0021	10:54	east slope cap, east sediment cap, central rip rap slough	marker repainted
					good; needs paint	160° T; 144° M	165°	F2	100-0022	10:56	southeast slope and sediment cap	marker repainted
G	47.536813	-122.318864	199355	1273491	heavily fouled with barnacles and shellfish	200° T; 184° M	200°	G1	100-0010	10:15	south rip rap slough	marker repainted
					heavily fouled with barnacles and shellfish	27° T; 11° M	27°	G2	100-0011	10:16	north rip rap slough, sediment cap, north slope cap	marker repainted
					heavily fouled with barnacles and shellfish	0-360°	0–360°	G3	100-0012 to 100-0017 ^e	10:19	entire Slip 4 EAA	marker repainted
H	47.536879	-122.318546	199378	1273570	good; needs paint	306° T; 290° M	306°	H1	100-0005	09:38	northwest slope cap, beach cap, sediment cap	marker repainted; leader line added to LWD
I	47.536335	-122.318543	199177	1273570	not found; see notes	278° T; 262° M	278°	I1	100-0004	09:22	west sediment cap	survey stake not found, used GPS location/coordinates to find station; reinstalled new stake and painted marker
J	47.535834 ^d	-122.319738 ^d	199002 ^d	1273268 ^d	good; needs paint	130° T; 114° M	130°	J1	100-0018	10:36	southeast slope cap	marker repainted; added bulkhead marker

^a Washington State plane coordinate system, north zone (NAD83/91), US feet.

^b Actual azimuth values are approximate, based on compass readings (referencing magnetic north) in the field. Magnetic north declination from true north for Seattle, Washington, in August 2019 was 15.6°(NOAA 2019).

^c Photograph numbers were provided by the camera in the field and differ from the ID numbers generated after downloading.

^d These target coordinates were re-located after Year 1 (2013) monitoring; the new target coordinates are approximate, as they are based on GPS satellite readings that experienced interference due to the proximity of metal bulkhead.

^e The six individual photographs provide a 360° view of the Slip 4 EAA.

EAA – early action area

LWD – large woody debris

ID – identification

GPS – global positioning system

NAD83/91 – North American Datum of 1983/1991

NOAA – National Oceanic and Atmospheric Administration

C2. Year 7 (2019) Photographs



Photo A1. Vantage from photo station A looking northeast toward the east central sediment cap; Azimuth 55° Magnetic (M); 10:44 PDT, water level approximately -2.04 ft MLLW



Photo B1. Vantage from photo station B looking toward the north sediment cap; Azimuth 48° M; 10:50 PDT; water level approximately -2.33 ft MLLW



Photo A1. Vantage from photo station A looking northeast toward the east central sediment cap; Azimuth 55° Magnetic (M); 10:44 PDT, water level approximately -2.04 ft MLLW



Photo B1. Vantage from photo station B looking north toward the sediment cap; Azimuth 48° M; 10:50 PDT; water level approximately -2.33 ft MLLW



Photo D1. Vantage from photo station D looking northeast toward the northwest beach and anchored logs; Azimuth 8° M; 11:03 PDT, water level approximately -2.48 ft MLLW



Photo E1. Vantage from photo station E looking southeast toward the north slope cap and outfalls; Azimuth 102° M; 10:04 PDT, water level approximately -0.75 ft MLLW



Photo E2. Vantage from photo station E looking southeast toward the northeast slope cap and north slough; Azimuth 144° M; 10:05 PDT, water level approximately -0.75 ft MLLW



Photo F1. Vantage from photo station F looking southeast toward the east slope cap, east sediment cap, and central slough; Azimuth 133° M; 10:54 PDT, water level approximately -2.33 ft MLLW



Photo F2. Vantage from photo station F looking southeast toward the southeast slope cap and southeast sediment cap; Azimuth 165° M; 10:56 PDT, water level approximately -2.33 ft MLLW

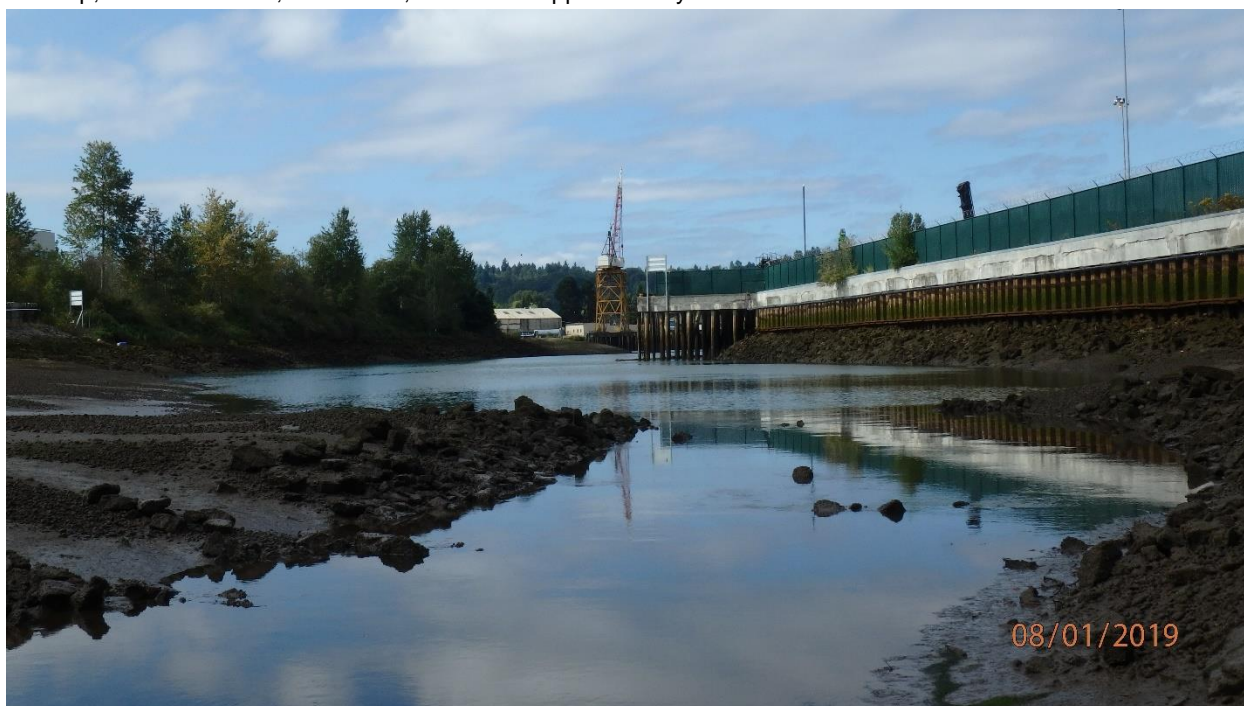


Photo G1. Vantage from photo station G looking southwest toward the south slough; Azimuth 200° M; 10:15 PDT, water level approximately -1.24 ft MLLW



Photo G2. Vantage from photo station G looking northeast toward the north slough, north sediment cap, and north slope cap; Azimuth 27° M; 10:16 PDT, water level approximately -1.24 ft MLLW



Photo G3.1. Vantage from photo station G looking north as part of 360° view of the entire Slip 4 EAA (1 of 6); Azimuth 0—360° M; 10:18 PDT, water level approximately -1.24 ft MLLW



Photo G3.2. Vantage from photo station G looking east as part of 360° view of the entire Slip 4 EAA (2 of 6); Azimuth 0—360° M; 10:18 PDT, water level approximately -1.24 ft MLLW



Photo G3.3. Vantage from photo station G looking southeast as part of 360° view of the entire Slip 4 EAA (3 of 6); Azimuth 0—360° M; 10:18 PDT, water level approximately -1.24 ft MLLW



Photo G3.4. Vantage from photo station G looking south as part of 360° view of the entire Slip 4 EAA (4 of 6); Azimuth 0—360° M; 10:18 PDT, water level approximately -1.24 ft MLLW



Photo G3.5. Vantage from photo station G looking southwest as part of 360° view of the entire Slip 4 EAA (5 of 6); Azimuth 0—360° M; 10:18 PDT, water level approximately -1.24 ft MLLW



Photo G3.6. Vantage from photo station G looking west as part of 360° view of the entire Slip 4 EAA (6 of 6); Azimuth 0—360° M; 10:18 PDT, water level approximately -1.24 ft MLLW



Photo H1. Vantage from photo station H looking northwest toward the northwest slope cap, northwest beach cap, and northwest sediment cap; Azimuth 306° M; 09:38 PDT, water level approximately 0.59 ft MLLW



Photo I1. Vantage from photo station I looking west toward the west sediment cap; Azimuth 278° M; 09:22 PDT, water level approximately 1.20 ft MLLW



Photo J1. Vantage from photo station J looking southeast toward the southeast slope cap; Azimuth 130° M; 10:36 PDT, water level approximately -1.85 ft MLLW



Additional photograph: northeast beach; Azimuth 12 ° M; 14:36 PDT on 8/5/2019



Additional photograph: warning sign at the sediment cap boundary



Additional photograph: warning sign at the sediment cap boundary

C3. Comparison Photographs

(Year 7, Year 5 and Year 4 photos by Windward; Year 3, Year 1, and baseline photos from Integral [2015], Appendix C)

A1 East Central Sediment Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)

B1 North Sediment Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)
Baseline (2012) not available

C1 Northwest Slope Cap and South Sediment Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)

C2 Northwest Slope Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)
Baseline (2012) not available

D1 Northwest Beach and Anchored Logs



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)
Baseline (2012) not available

E1 North Slope Cap and Outfalls



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)



Baseline (2012)

E2 Northeast Slope Cap and North Slough



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)



Baseline (2012)

F1 East Slope Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)



Baseline (2012)

F2 Southeast Slope and Sediment Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)

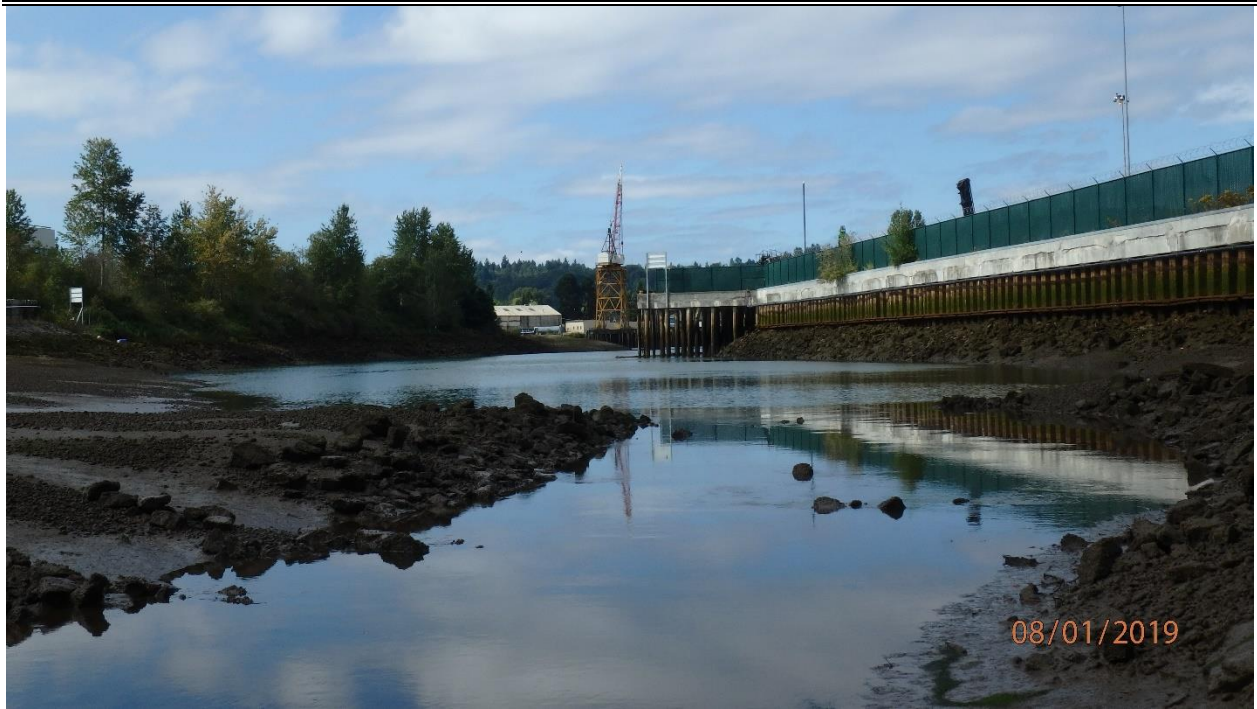


Year 1 (2013)

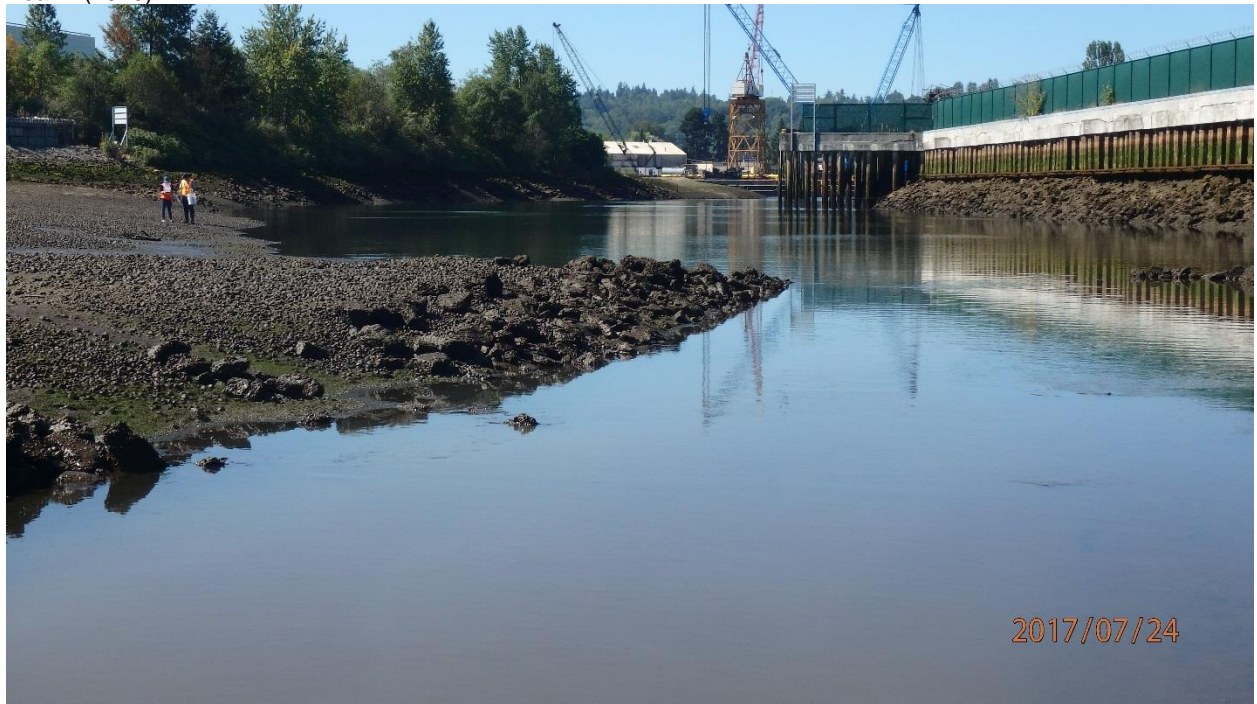


Baseline (2012)

G1 South Slough



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)



Baseline (2012)

G2 North Slough



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)



Baseline (2012)

H1 Northwest Slope Cap, Beach Cap and Sediment Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)
Baseline (2012) not available

I1 West Sediment Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)
Baseline (2012) not available

J1 Southeast Slope Cap



Year 7 (2019)



Year 5 (2017)



Year 4 (2016)



Year 3 (2015)



Year 1 (2013)
Baseline (2012) not available

C4. Visual Inspection Photo Log

Slip 4 Early Action Area Visual Inspection Photo Log

Date: 08/01/2019

Photographer: J. RHEUBEN

Equipment: Olympus Tough - ULTRAWIDE LENS

Photo Station ID	Target Coordinates		Marker Type/Condition	Target Photo Orientation (True North)	Actual Photo Orientation	Photo ID	Photo Numbers	Photo Time	Photo Target Area Description	Notes
A	199125 ^b	1273323 ^b	POOR, BENT + BURIED	55°	55	A1	100-0019	1044	East-Central Sediment Cap	SEE NOTES ON REV. ADDED BULKHEAD MARKER MARKER REPLACED + REPAINTED
B	199292	1273396	GOOD, NEEDS PAINT	48°	48	B1	100-0020	1050	North Sediment Cap	MARKER REPAINTED
C	199499	1273484	GOOD, NEEDS PAINT	178°	178	C1	100-0006	0948	Northwest Slope Cap, South Sediment Cap	MARKER REPAINTED
			" "	217°	217	C2	100-0007	0949	Northwest Slope Cap	" "
D	199432	1273403	GOOD, NEEDS PAINT	24°	24	D1	100-0023	1103	Northwest Beach/Anchored Logs	MARKER REPAINTED
E	199486	1273441	GOOD, NEEDS PAINT	102°	102	E1	100-0008	1004	North Slope Cap, Outfalls	MARKER REPAINTED
			" "	144°	144	E2	100-0009	1005	Northeast Slope Cap, North Rip Rap Slough	" "
F	199338	1273418	GOOD, NEEDS PAINT	133°	133	F1	100-0021	1054	East Slope Cap, East Sediment Cap, Central Riprap Slough	MARKER REPAINTED
			" "	160°	165	F2	100-0022	1056	Southeast Slope and Sediment Cap	" "
G	199355	1273491	HEAVILY FOULED w/ BARNACLES + SHELLFISH	200°	200	G1	100-0010	1015	South Riprap Slough	MARKER REPAINTED
			" "	27°	27	G2	100-0011	1016	North Riprap Slough, Sediment Cap, North Slope Cap	" "
			" "	0-360°	0-360	G3	100-0012 through 100-0017	1019	Entire Slip 4 Early Action Area	" "
H	199378	1273570	GOOD, NEEDS PAINT	306°	306	H1	100-0005	0938	Northwest Slope Cap, Beach Cap, Sediment Cap	MARKER REPAINTED
I	199177	1273570	NOT FOUND, SEE REV. NOTES	278°	278	I1	100-0004	0922	West Sediment Cap	LEADER LINE ADDED TO LWD SEE NOTES ON REV. MARKER REPLACED + REPAINTED
J	199002 ^b	1273268 ^b	GOOD, NEEDS PAINT	130°	130	J1	100-0008 JR 8/1/19	1036	Southeast Slope Cap	MARKER REPAINTED ADDED BULKHEAD MARKER

Notes:

^a Washington state plane coordinate system, north zone (NAD-83/91), U.S. feet.

^b These coordinates are approximate; the stations were relocated close to the upland sheetpile bulkhead during Year 1 (2013) monitoring to allow for on-foot access. The locations are marked with rebar stakes and marking paint on the sheetpile wall.

PHOTO LOC
ID

ADDITIONAL NOTES

I

SURVEY STAKE NOT FOUND, USED GPS LOCATION/COORDS
TO FIND STATION. RE-INSTALLED NEW STAKE + PAINTED*

A.

SURVEY STAKE WAS FOUND, BENT + DRIVEN INTO GROUND.
RE-INSTALLED NEW STAKE + PAINTED. ADDED BULKHEAD
MARKER

8/5/19

ADDITIONAL
POINT

LOC
NE
POCKET BEACH → 12° → 100-001 → 1436
BERWY PHOTO ID
(TIME)